

REMARKS

Claims 1-17 are pending.

Claims 1-17 were rejected.

Claims 2-4, 6-8, 10, 14, 15 and 17 are cancelled, herein.

Claims 1, 5, 9, 11-13 and 16 are amended, herein.

Claims 18-30 are new. No new matter is added.

Specification Objections

The Examiner objected to the specification for a spelling error in the title. The title has been corrected as identified herein, such that objection is believed to be moot.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-3, 5-7, and 9-17 under 35 U.S.C. § 103(a) over U.S. Patent no. 3,884,576 to Mochimaru, *et al.*, ("Mochimaru").

The rejection is traversed. Claim 9 is amended to recite the features of original claim 10 in addition to the features recited by original claim 11, which depended on claims 9 and 10. Therefore claim 9 is amended to include the same features as previously examined claim 11 such that the amendment of claim 9 would not necessitate a further patent search or new grounds for rejection. Amended claim 9 recites a method for enhancing a life of a scan device, comprising:

- providing a scan chassis, wherein the scan chassis comprises a plurality of lamps including a first lamp and a second lamp, a reflection mirror set, an optical lens set, and an image capturing device, and wherein each of the lamps can provide a light with a predetermined brightness to a document;
- randomly selecting and turning on the first lamp of the plurality of lamps;
- scanning a chart so as to obtain a first scanning result; and
- determining whether the brightness of the first scanning result is higher than a predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, turning off the first lamp and turning on the second lamp.

Mochimaru discloses a copying machine including a plurality of lamps 13 to 16 that are energized for varying periods of time to correct for an amount of exposure due to movement of a

variable magnification mechanism (Abstract and column 2 lines 38-43). The exposure is corrected by adjusting a variable resistor contained in a timer (column 2 lines 43-46).

In rejecting claim 11, the Examiner stated that “it would have been obvious and reasonable to expect that the life of the lamps (13-16) may be extended as a consequence because not all lamps (13-16) operate at the same brightness level. Some may very well be off since Mochimaru does not preclude the possibility of zero light intensity for a particular lamp.” (final paragraph beginning on page 5 of the Office Action). The Applicant respectfully disagrees with the Examiner’s interpretation of Mochimaru.

Mochimaru identifies the lamps 13 to 16 as constituting an exposure unit (column 1 lines 66-68), wherein the lamps 13 to 16 are arranged to illuminate the marginal areas of an original with a greater illuminance than the center of the original (column 2 lines 22-26). The lamps 13 to 16 are shown in Figure 1 as being provided about a perimeter of the transparent glass plate 12, so that they are able to illuminate the marginal areas of the original as mentioned. Furthermore, Mochimaru is directed to a method of providing a uniform exposure distribution of the original (column 2 lines 32-35).

If one of the lamps 13 to 16 were provided with a zero light intensity (as suggested by the Examiner), then a marginal area of the original would not be illuminated by the corresponding lamp, and the marginal area would have less exposure than the illuminated marginal areas. As a result, Mochimaru teaches away from providing any of the lamps 13 to 16 with a zero light intensity since that would provide a non-uniform exposure of the original. Additionally, Mochimaru states that the lamps 13 to 16 must be energized for varying periods of time to correct for an amount of exposure (column 2 lines 38-40). One skilled in the art would appreciate that energizing the lamps 13 to 16 would not provide a zero light intensity, as suggested by the Examiner. Accordingly, Mochimaru fails to disclose determining whether the brightness of the first scanning result is higher than a predetermined value or not, if it is, starting the scanning, and if the brightness of the scanning result is lower than the predetermined value, turning off the first lamp and turning on the second lamp.

If the Examiner is making an inherency argument, by stating that Mochimaru does not preclude the possibility of zero light intensity for a particular lamp, Applicant respectfully reminds the Examiner that according to MPEP 2112 (IV), to establish inherency, the extrinsic

evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. Mochimaru does not disclose providing a zero light intensity for any of the lamps. To the contrary, every embodiment in Mochimaru describes each of the lamp groups as being energized for an exposure period (e.g. $1/\alpha - \beta$ and $1/\alpha + \beta$) or as including an equal time period (column 4 lines 57-59).

The Examiner suggests that the graph shown in Figure 4 of Mochimaru discloses scanning a chart so as to obtain a first scanning result, as recited by claim 9 (see first two lines of page 3 of the Office Action). The graph illustrated in Figure 4 shows the relationship between the exposure period and the setting of the exposure dial when the copying is effected (column 2 lines 52-55). The Applicant respectfully submits that the Examiner interpreted the chart recited by claim 9 without properly interpreting the chart in the context of the recited claim language. Claim 9 recites scanning a chart so as to obtain a first scanning result, and determining whether the brightness of the first scanning result is higher than a predetermined value or not. Any scanning result obtained from scanning Figure 4 would be useless in determining whether the brightness of the scanning result is higher than a predetermined value. Furthermore, whereas the graph shown in Figure 4 is directed to an exposure period of the lamps 13-16, an exposure period is not recited or claimed by Applicant. Accordingly, Applicant respectfully submits that the graph of Figure 4 fails to disclose scanning a chart so as to obtain a first scanning result, as recited by claim 9.

Mochimaru fails to disclose randomly selecting and turning on one of the lamps, or why it would be beneficial to do so. In fact, the Examiner acknowledges as much on page 3, first full paragraph of the Office Action. Instead, the Examiner suggests that “one skilled in the art would have reasonably concluded that a manual adjustment of an exposure dial or exposure correction could be done randomly.” Furthermore, the Examiner states that “nothing in Mochimaru precludes the exposure dial from being performed randomly nor adjusting the light intensity of the lamp(s) (13-16) to an ‘on’ or ‘off’ state.” The Applicant respectfully disagrees with this interpretation of Mochimaru for similar reasons as provided above with respect to the Examiner’s assertion that Mochimaru does not preclude the possibility of a zero light intensity

for a particular lamp (final paragraph beginning on page 5 of the Office Action). Applicant again reminds the Examiner that inherency may not be established by probabilities or possibilities.

Even assuming that manual adjustment of an exposure dial could be done randomly, no enhancement of the life of a scan device would be achieved by Mochimaru. Rather, all the lamps 13 to 16 of Mochimaru are energized for a time period according to the factor α and the displacement of the optical axis by β (column 2 lines 56-68). Randomly selecting the lamps would have no effect on the period of time that each lamp is energized, since random selection would merely alternate which lamps are illuminated first. Since there would be no benefit in randomly selecting the lamps 13 to 16 of Mochimaru, there would be no reason or motivation for one skilled in the art to randomly correct the exposure, as suggested by the Examiner at page 3, first full paragraph of the Office Action.

Applicant respectfully submits that Mochimaru fails to disclose each of the features of claim 9. Accordingly, withdrawal of the rejection of claim 9 is respectfully requested.

Claims 1, 5, 9, 11-13 and 16 and 18-30 are believed to be allowable for similar reasons as discussed above with respect to claim 9, in addition to the further novel features recited therein. For example, amended claim 5 recites a scan device comprising, in part, a plurality of light source modules, wherein each of the plurality of light source modules are initially configured to provide a light with at least a predetermined brightness suitable for scanning the document. Mochimaru, on the other hand, describes that all of the lamps 13 to 16 are required to be energized for a period of time in order to copy the original (column 2 lines 32-40). Accordingly, any one of the lamps 13 to 16 provides only a portion of the light that is suitable for copying the original; the light from the remaining lamps is still required to provide a uniform exposure of the original.

Claim 28 recites a method comprising, in part, turning off the first light source prior to scanning the document. Mochimaru, on the other hand, discloses that all of the lamps 13 to 16 are energized while the original is being copied (column 2 lines 32-40). Accordingly, the lamps 13 to 16 of Mochimaru are turned off while the original is being copied, or after the original has been copied.

By way of further example, claim 30 recites the method of claim 28 wherein the document is scanned using light from only the second light source. As discussed above, since all of the lamps of Mochimaru are used to copy the original, none of the lamps 13 to 16 disclose the second light source recited by claim 30.

At least for the above reasons, Applicant respectfully requests the withdrawal of the rejection of claims 1, 5, 9, 11-13 and 16, and the allowance of claims 18-30.

Any statements made by Examiner that are not addressed by Applicant do not necessarily constitute agreement by the Applicant. In some cases Applicant may have amended or argued the allowability of independent claims thereby obviating grounds for rejection of the dependent claims.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1, 5, 9, 11-13, 16 and 18-30 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 224-2170 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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